

WHAT IS CLAIMED IS:

1. A contact lens comprising:
a contact lens body comprising a hydrophilic polymeric material and a water soluble polymer component, the contact lens body being ready for use in an eye.
2. The contact lens of claim 1 wherein the water soluble polymer component is in intimate admixture with the hydrophilic polymeric material.
3. The contact lens of claim 1 wherein the water soluble polymer component is ophthalmically acceptable.
4. The contact lens of claim 1 wherein the water soluble polymer component is derived from a diluent material used during polymerization of the hydrophilic polymeric material.
5. The contact lens of claim 1 wherein the water soluble polymer component is derived from a diluent material used during solution polymerization of the hydrophilic polymeric material.
6. The contact lens of claim 4 wherein the contact lens body is produced using wet cast molding.
7. The contact lens of claim 1 which is structured to be disposed of after a single use in an eye.
8. The contact lens of claim 1 wherein the contact lens body has an increased modulus relative to an identical lens body in which the water soluble polymer component is replaced with water.

9. The contact lens of claim 1 wherein the water soluble polymer component is physically immobilized by the hydrophilic polymeric material.

10. The contact lens of claim 1 wherein the contact lens body is configured so that at least a portion of the water soluble polymer component leaves the contact lens body during use of the contact lens body in an eye.

11. The contact lens of claim 1 wherein the water soluble polymer component and the hydrophilic polymeric material form an interpenetrating network or a psuedo interpenetrating network.

12. The contact lens of claim 1 wherein the water soluble polymer component and the hydrophilic polymeric material form a psuedo interpenetrating network.

13. The contact lens of claim 1 wherein the hydrophilic polymeric material is obtained by polymerization of at least one hydrophilic monomeric component.

14. The contact lens of claim 13 wherein the hydrophilic polymeric material is obtained by polymerization of at least one hydrophilic monomeric component and at least one cross-linking monomeric component.

15. The contact lens of claim 14 wherein the hydrophilic monomeric component is selected from the group consisting of hydroxyalkyl acrylates, hydroxyalkyl methacrylates, N-vinyl pyrrolidone, acrylamides, vinyl alcohol, hydrophilic polyurethane precursors, glycerol acrylates, glycerol methacrylates, acrylates,

methacrylates, substituted counterparts thereof and the like and mixtures thereof.

16. The contact lens of claim 1 wherein the water soluble polymer component is selected from the group consisting of hydrophillic vinylic monomers, such as vinyl (C₄-C₄₅)alkyl ethers, vinyl (C₇-C₄₉) alkenoic acids and the like and mixtures thereof; hydroxy substituted (C₅-C₄₅) alkyl, alkoxy-alkyl and polyalkoxy-alkyl and mono- or bi-cycloaliphatic fumarates, maleates, acrylates, methacrylates, acrylamides and methacrylamides, and the like and mixtures thereof; acrylic acid, methacrylic acid, the corresponding amino or mono- and di-(lower alkyl) amino substituted acrylic monomers and the like and mixtures thereof; and vinyl-lactams and the like and mixtures thereof.

17. The contact lens of claim 1 wherein the water soluble polymer component is selected from the group consisting of polyalkylene glycols, polyvinyl pyrrolidone, polymethacrylic acid, polyvinyl alcohol and mixtures thereof.

18. A package system comprising:

a contact lens ready for use in an eye and comprising a contact lens body comprising a hydrophilic polymeric material and a water soluble polymer component;

a liquid medium comprising an amount of the water soluble polymer component in addition to that present in the contact lens body; and

a container holding the contact lens and the liquid medium.

19. The package system of claim 18 wherein the container is structured to hold the contact lens in

contact with the liquid medium and the liquid medium includes the water soluble polymer component prior to the liquid medium being placed in contact with the contact lens.

20. The package system of claim 18 wherein the container is sealed.

21. The package system of claim 18 wherein the water soluble polymer component is ophthalmically acceptable.

22. The package system of claim 18 wherein the water soluble polymer component in the contact lens body is derived from a diluent material used during polymerization of the hydrophilic polymeric material.

23. The package system of claim 18 wherein the contact lens body is produced using wet cast molding.

24. The package system of claim 18 wherein the contact lens is structured to be disposed of after a single use in an eye.

25. The package system of claim 18 wherein the contact lens body has an increased modulus relative to an identical lens body in which the water soluble polymer component is replaced with water.

26. The package system of claim 18 wherein the water soluble polymer component in the contact lens body is physically immobilized by the hydrophilic polymeric material.

27. The package system of claim 18 wherein the

contact lens body is configured so that at least a portion of the water soluble polymer component leaves the contact lens body during use of the contact lens body in an eye.

28. The package system of claim 18 wherein the water soluble polymer component and the hydrophilic polymeric material form an interpenetrating network or a psuedo interpenetrating network.

29. The package system of claim 18 wherein the hydrophilic polymeric material is obtained by polymerization of at least one hydrophilic monomeric component.

30. The package system of claim 18 wherein the hydrophilic polymeric material is obtained by polymerization of at least one hydrophilic monomeric component and at least one cross-linking monomeric component.

31. The package system of claim 30 wherein the hydrophilic monomeric component is selected from the group consisting of hydroxyalkyl acrylates, hydroxyalkyl methacrylates, N-vinyl pyrrolidone, acrylamides, vinyl alcohol, hydrophilic polyurethane precursors, glycerol acrylates, glycerol methacrylates, acrylates, methacrylates, substituted counterparts thereof and the like and mixtures thereof.

32. The package system of claim 18 wherein the water soluble polymer component is selected from the group consisting of hydrophillic vinylic monomers, such as vinyl (C₄-C₄₅)alkyl ethers, vinyl (C₇-C₄₉) alkenoic acids and the like and mixtures thereof; hydroxy

substituted (C_5 - C_{45}) alkyl, alkoxy-alkyl and polyalkoxy-alkyl and mono- or bi-cycloaliphatic fumarates, maleates, acrylates, methacrylates, acrylamides and methacrylamides, and the like and mixtures thereof; acrylic acid, methacrylic acid, the corresponding amino or mono- and di-(lower alkyl) amino substituted acrylic monomers and the like and mixtures thereof; and vinyl-lactams and the like and mixtures thereof.

33. The package system of claim 18 wherein the water soluble polymer component is selected from the group consisting of polyalkylene glycols, polyvinyl pyrrolidone, polymethacrylic acid, polyvinyl alcohol and mixtures thereof.

34. A method of producing a contact lens, the method comprising

polymerizing at least one hydrophilic monomeric component in the presence of a water soluble polymer component to form a contact lens body comprising a hydrophilic polymeric material and the water soluble polymer component; and

placing the contact lens body in a packaging container.

35. The method of claim 34 wherein the polymerizing step is a solution polymerization step.

36. The method of claim 34 wherein the water soluble polymer component is included in a diluent used during the polymerizing step.

37. The method of claim 34 wherein the polymerizing step occurs in a contact lens mold.

38. The method of claim 34 wherein an effective amount of at least one cross-linking monomeric component is present during the polymerizing step.

39. The method of claim 34 wherein the water soluble polymer component is physically immobilized by the hydrophilic polymeric material in the contact lens body.

40. The method of claim 34 wherein the water soluble polymer component and the hydrophilic polymeric material form an interpenetrating network or a psuedo interpenetrating network in the contact lens body.

41. The method of claim 34 wherein the hydrophilic monomeric component is selected from the group consisting of hydrophilic monomeric component is selected from the group consisting of hydroxyalkyl acrylates, hydroxyalkyl methacrylates, N-vinyl pyrrolidone, acrylamides, vinyl alcohol, hydrophilic polyurethane precursors, glycerol acrylates, glycerol methacrylates, acrylates, methacrylates, substituted counterparts thereof and the like and mixtures thereof.

42. The method of claim 34 wherein the water soluble polymer component is selected from the group consisting of hydrophilic vinylic monomers, such as vinyl (C₄-C₄₅)alkyl ethers, vinyl (C₇-C₄₉) alkenoic acids and the like and mixtures thereof; hydroxy substituted (C₅-C₄₅) alkyl, alkoxy-alkyl and polyalkoxy-alkyl and mono- or bi-cycloaliphatic fumarates, maleates, acrylates, methacrylates, acrylamides and methacrylamides, and the like and mixtures thereof; acrylic acid, methacrylic acid, the corresponding amino or mono- and di-(lower alkyl) amino substituted acrylic

monomers and the like and mixtures thereof; and vinyl-lactams and the like and mixtures thereof.

43. The method of claim 34 wherein the water soluble polymer component is selected from the group consisting of polyalkylene glycols, polyvinyl pyrrolidone, polymethacrylic acid, polyvinyl alcohol and mixtures thereof.

44. The method of claim 34 which further comprises placing a liquid medium in the container.

45. The method of claim 44 wherein the liquid medium includes an amount of the water soluble polymer component in addition to that present in the contact lens body.

46. The method of claim 45 wherein the water soluble polymer component and the liquid medium are ophthalmically acceptable.

47. The method of claim 34 which further comprises sealing the container with the contact lens body located therein.